This listing of claims will replace all prior versions and listings of the claims in this application.

Claim 1 (currently amended)   A process for use as part of a routing protocol in an ad hoc digital communications network wherein the network is comprised of a plurality of nodes each of which includes a router including a routing table having routing information defining routing pathways through said network and including one or more metrics defining message transfer characteristics for each such routing pathway, comprising the steps of:

a)   having a plurality of said nodes exchange routing advertisement messages including routing pathways through said network and including one or more metrics defining message transfer costs for each routing pathway;

b)   having one of said nodes check to determine if it comprises an advantaged node~~which may experience heavy network traffic potentially leading to network communications traffic congestion~~;

c)   having an advantaged node adjust one of the metrics of a plurality of routing pathways through said node entered into a routing table to form an updated routing table; and

d)   having this updated routing table including adjusted metrics advertised across said network for the purpose of updating the routing tables of other nodes in the network.

Claim 2 (original)   The process of claim 1, wherein:

the step of having each node check to determine if it comprises an advantaged node includes the step of having the node calculate a ratio of the node's neighbors to the average number of its neighbors' neighbors as a basis for determining if it is an advantaged role.

Claim 3 (original)   The process of claim 2, wherein:

said routing protocol comprises a DSDV protocol and said metric comprises hop count, and

said step of adjusting one or more of the metrics of a plurality of routing pathways comprises incrementing the hop counts of said pathways.

Claim 4 (original)   The process of claim 2, wherein:

said routing protocol comprises a link state protocol and said metric comprises latency.

Claim 5 (currently amended)   A process for use as part of a routing protocol in an ad hoc digital communications network featuring differentiated services wherein the network is comprised of a plurality of nodes each of which includes a router having multidimensional routing information reflecting different code-point levels and defining routing pathways through said network for each code-point and one or more metrics

defining message transfer characteristics for each such routing pathway for each code-point, comprising the steps of:

a)   having a plurality of said nodes exchange routing advertisement messages including routing pathways for each code-point through said network and including one or more metrics defining message transfer costs for each routing pathway;

b)   having one of said nodes check to determine if it comprises an advantaged node~~which may experience heavy network traffic potentially leading to network communications traffic congestion~~;

c)   having an advantaged node increase one or more of the metrics of a plurality of routing pathways through said node entered into a routing table by amounts based on the code-point of the entry to form an updated routing table; and

d)   having said updated routing table advertised across said network for the purpose of updating the routing tables of other network nodes.

Claim 6 (original)   The process of claim 5, wherein:

the step of having each node check to determine if it comprises an advantaged node includes the step of having the node calculate a ratio of the node's neighbors to the average number of its neighbors' neighbors as a basis for determining if it is an advantaged node.

Claim 7 (original)   The process of claim 5, wherein:

said routing protocol comprises a DSDV protocol and said one or more metrics comprise hop count.

Claim 8 (original)   The process of claim 5, wherein:

said routing protocol comprises a link state protocol and said one or more metrics comprise latency.

Claim 9 (original)   A process for use as part of a routing protocol in a mobile ad hoc digital communications network composed of a plurality of nodes each of which includes a router having a routing table including routing information defining routing pathways through said network and one or more metrics defining message transfer characteristics for each such routing pathway, comprising the steps of:

a)   having a plurality of said nodes exchange routing information including routing pathways through said network and one or more metrics defining message transfer costs for each routing pathway;

b)   having one of said nodes calculate a measure of the degree to which it comprises an advantaged node;

c)   having an advantaged node increase one or more of the metrics of a plurality of pathways through said node entered into its routing table to

form an updated routing table as a function of said measure of the degree to which it comprises an advantaged node; and

d)   having said updated routing table including adjusted metrics advertised across said network for the purpose of updating the routing tables of other network nodes.

Claim 10 (original)   The process of claim 9, wherein:

said measure of the degree to which a node comprises an advantaged node is based on based on a ratio of a node's neighbors to the average number of its neighbor nodes' neighbors.

Claim 11 (original)   The process of claim 9, wherein:

said routing protocol comprises a DSDV protocol and said one or more metrics comprises hop count, and

said measure of the degree to which a node comprises an advantaged node is based on a ratio of a node's neighbors to the average number of its neighbor nodes' neighbors.

Claim 12 (original)   The process of claim 9, wherein:

said routing protocol comprises a link state protocol and said one or more metrics comprises latency.

Claim 13 (currently amended)   A process for use as part of a routing protocol in a mobile ad hoc digital communications network comprising of a plurality of nodes each of which includes a router having a routing table including routing information defining routing pathways through said network and including one or more metrics defining message transfer characteristics for each such routing pathway, comprising the steps of:

a)   having a plurality of said nodes exchange routing advertisement messages including routing pathways through said network and one or more metrics defining message transfer cost metrics for each routing pathway;

b)   having one or more of said nodes check to determine if they comprise partially disadvantaged nodes;

c)   having a partially disadvantaged node increase one or more of the metrics of a plurality of routing pathways through said node entered into a routing table by ~~a substantial~~ an amount in order to discourage all but essential traffic through said node and form an updated routing table; and

d)   having said updated routing table advertised across said network for the purpose of updating the routing tables of other network nodes.

Claim 14 (original)   The process of claim 13, wherein:

the step of having each node check to determine if it comprises a partially disadvantaged node includes the step of having the node check its available power reserves as a basis for determining if it may be a partially disadvantaged node.

Claim 15 (original)   The process of claim 13, wherein:

said routing protocol comprises a DSDV protocol and said one or more metrics comprise hop count.

Claim 16 (original)   The process of claim 13, wherein:

said routing protocol comprises a link state protocol and said one or more metrics comprise latency.

Claim 17 (currently amended)   A process for use as part of a routing protocol in a mobile ad hoc digital communications network composed of a plurality of nodes each of which includes a router having a routing table defining routing pathways through said network and including one or more metrics defining message transfer characteristics for each such routing pathway, comprising the steps of:

a)   exchanging routing information between a plurality of said network nodes including routing pathways through said network and one or more metrics defining message transfer costs for each routing pathway;

b) generating a measure the degree to which one of said nodes may comprise an advantaged node~~which may experience unduly heavy network communications traffic~~;

c) adjusting one or more of the metrics of a plurality of routing pathways through said node as entered into its routing table as a function of said measure of the degree to which the node is an advantaged node to form an updated routing table to be used for advertising routing information; and

d) advertising said updated routing table including adjusted metrics across said network for the purpose of updating the routing tables of other network nodes.

Claim 18 (original)   The process of claim 17, wherein:

said routing protocol comprises a DSDV type protocol and said one or more metrics comprises hop count, and

said measure of the degree to which a node comprises an advantaged node is based on a ratio of a node's neighbors to the average number of its neighbor nodes' neighbors.

Claim 19 (original)   The process of claim 17, wherein:

said routing protocol comprises a DSDV protocol and said one or more metrics comprise hop count, and

said step of adjusting one or more of the metrics of a plurality of routing pathways comprises increasing the hop counts of said pathways.

Claim 20 (currently amended)   A process for use as part of a routing protocol in an ad hoc digital communications network featuring differentiated services wherein the network is comprised of a plurality of nodes each of which includes a router having multidimensional routing information reflecting different code-point levels and defining routing pathways through said network according to code-point and including one or more metrics defining message transfer characteristics for each routing pathway according to code-point, comprising the steps of:

a)   exchanging routing information between a plurality of said nodes including routing pathways for each code-point through said network and including one or more metrics defining message transfer costs for each routing pathway;

b)   determining if a node comprises an advantaged node ~~which may experience heavy network traffic potentially leading to network congestion~~;

c)   adjusting one or more of the metrics for a plurality of routing pathways through an advantaged node as entered into its routing table by amounts

based on the code-point level of the entry to form an updated routing table; and

d)   advertising said updated routing table including adjusted metrics across said network for the purpose of updating the routing tables of other nodes in the network.

Claim 21 (original)   The process of claim 20, wherein:

determining if a node comprises an advantaged node includes the step of calculating a ratio of the node's neighbors to the average number of its neighbors' neighbors.

Claim 22 (original)   The process of claim 20, wherein:

said routing protocol comprises a DSDV protocol and said one or more metrics comprise hop count, and

said step of adjusting one or more of the metrics for a plurality of routing pathways comprises incrementing the hop counts of said pathways.